

CLAIMS:

What is claimed is:

1 Sub 17

- 1 1. A method comprising:
2 receiving a downlink broadcast burst from a base station;
3 determining timing for sending an uplink burst;
4 selecting a training sequence for the uplink burst; and
5 transmitting the uplink burst using the selected training sequence.
- 1 2. The method of Claim 1 wherein selecting the training sequence comprises
2 randomly selecting from among a set of predetermined training sequences.
- 1 3. The method of Claim 2 wherein randomly selecting comprises generating
2 a random number and applying the random number to select from among the set of
3 predetermined training sequences.
- 1 4. The method of Claim 1 wherein selecting the training sequence comprises
2 determining a digit from an identification number of the user terminal and applying the
3 determined digit to select from among a set of predetermined training sequences.
- 1 5. The method of Claim 1 wherein receiving a downlink broadcast burst
2 comprises receiving an indication of a set of predetermined training sequences for use in
3 selecting a training sequence.
- 1 6. The method of Claim 1 wherein determining timing comprises
2 determining timing of a broadcast channel on which the broadcast burst was received.
- 1 7. The method of Claim 1 wherein determining timing comprises
2 determining nominal timing relative to a frame of the broadcast burst.

1 8. The method of Claim 1 wherein determining timing comprises
2 determining timing on a broadcast channel on which the broadcast burst was received.

1 9. The training sequence of Claim 1 wherein the repetition of the core
2 sequence comprises a repetition of the core sequence successively a specified number of
3 times.

1 10. The training sequence of Claim 1 wherein the core sequence consists
2 essentially of 12 symbols.

1 11. The training sequence of Claim 1 wherein the core sequence has a
2 normalized cross-correlation of about $1/3$.

1 12. The training sequence of Claim 1 wherein the core sequence has a
2 normalized autocorrelation of about $1/3$.

1 13. The training sequence of Claim 1 wherein the absolute value of the mean
2 of the core sequence about zero.

1 14. A machine-readable medium having stored thereon data representing
2 sequences of instructions which, when executed by a machine, cause the machine to
3 perform operations comprising:

4 receiving a downlink broadcast burst from a base station;

5 determining timing for sending an uplink burst;

6 selecting a training sequence for the uplink burst; and

7 transmitting the uplink burst using the selected training sequence.

1 15. The medium of Claim 14 wherein the instructions causing the machine to
2 perform operations comprising selecting the training sequence further comprise

3 instructions for randomly selecting from among a set of predetermined training
4 sequences.

1 16. The medium of Claim 15 wherein the instructions causing the machine to
2 perform operations comprising randomly selecting further comprise instructions for
3 generating a random number and applying the random number to select from among the
4 set of predetermined training sequences.

1 17. The medium of Claim 14 wherein the instructions causing the machine to
2 perform operations comprising selecting the training sequence further comprise
3 instructions for determining a digit from an identification number of the user terminal and
4 applying the determined digit to select from among a set of predetermined training
5 sequences.

1 18. The medium of Claim 14 wherein the instructions causing the machine to
2 perform operations comprising receiving a downlink broadcast burst further comprise
3 instructions for receiving an indication of a set of predetermined training sequences for
4 use in selecting a training sequence.

1 19. An apparatus comprising:
2 a receiver to receive a downlink broadcast burst from a base station;
3 a processor to determine timing for sending an uplink burst, and to select a
4 training sequence for the uplink burst; and
5 a transmitter to transmit the uplink burst using the selected training sequence.

1 20. The apparatus of Claim 19 wherein the processor further selects the
2 training sequence by randomly selecting from among a set of predetermined training
3 sequences.

1 21. The apparatus of Claim 20 wherein the processor randomly selects by
2 generating a random number and applying the random number to select from among the
3 set of predetermined training sequences.

1 22. The apparatus of Claim 19 further comprising a register containing an
2 identification number of the apparatus and wherein the processor selects by determining a
3 digit from the register and applying the determined digit to select from among a set of
4 predetermined training sequences.

1 23. The apparatus of Claim 19 wherein the receiver receives a downlink
2 broadcast burst including an indication of a set of predetermined training sequences for
3 use in selecting a training sequence.

1 24. The method of Claim 1 wherein determining timing comprises
2 determining timing of a broadcast channel on which the broadcast burst was received.